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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,870

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Takamasa Iwaki

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7590 02/19/2010  
Jack Schwartz & Associates  
Suite 1510  
1350 Broadway  
New York, NY 10018

EXAMINER

NGUYEN, SON T

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/539,870	<b>Applicant(s)</b> IWAKI ET AL.	
	<b>Examiner</b> Son T. Nguyen	<b>Art Unit</b> 3643	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 1/20/10.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-10, 12-14, 16-19 and 26-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-14, 16-19 and 26-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                    | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1,3-10,12-14,16-19,26-31 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. For claims 1 & 10, the limitation "solid" is not described in the specification, especially in regards to a sheet because solid is usually associated with something firm or hard, thus, a sheet as in the present invention is not considered to be solid.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. **Claims 1,3,5-9,27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo (5641482) in view of Ito et al. (5939088).**

For claim 1, Sugo teaches a floor mat laid in a small animal rearing cage for housing and rearing a small animal (col. 2, line 2), comprising a solid and reusable sheet

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(the mat is reused until disposed of) having a recoverable deodorization capacity when washed alone or with alkaline or acidic substances (the deodorizer still lingers around to absorbed ammonia or the like from the animal's waste, see examples); wherein the sheet is formed of an improved cellulose fabric (col. 1, lines 56-66, col. 2, lines 1-2) comprising cellulose (col. 1, lines 56-66, col. 2, lines 1-2) having carboxyl groups (col. 2, lines 15-16) chemically bound (by graft polymerization, col. 2, lines 19-25) thereto wherein the cellulose having carboxyl groups chemically bound thereto is formed in a shape of a sheet; wherein the sheet has a temperature holding property to a degree that can keep the body temperature of the small animal (because of the material the sheet is made of, there will be some degree of temperature holding property).

However, Sugo is silent about the sheet having randomly formed, meandering and overlapped folds of various shapes and sizes, a plurality of ridges and grooves are formed on the folds to make walls for assuring a sleeping floor, excretion place, and birth and breeding place for the small animal, and having a flexibility to a degree that can wrap the body of the small animal and a size that covers at least the entire abdomen of the small animal, where the flexibility and size are such that the sheet is capable of being seamlessly folded onto itself, even after being laid down in a form where the sheet is randomly folded onto itself so as to form a fold large enough for the small animal to hide at least half of its body.

Ito et al. teach in the same field of endeavor of floor mat for animal as Sugo in which Ito et al.'s mat is a sheet 12 having randomly formed, meandering and overlapped folds of various shapes and sizes, a plurality of ridges and grooves are formed on the

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folds to make walls for assuring a sleeping floor, excretion place, and birth and breeding place for the small animal (see fig. 4), and having a flexibility to a degree that can wrap the body of the small animal and a size that covers at least the entire abdomen of the small animal, where the flexibility and size are such that the sheet is capable of being seamlessly folded onto itself, even after being laid down in a form where the sheet is randomly folded onto itself so as to form a fold large enough for the small animal to hide at least half of its body (see fig. 4 for the flexibility of the sheet being folded onto itself seamlessly). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a sheet with the features as taught by Ito et al. in place of the sheet of Sugo in order to provide a sheet that is flexible and able to wrap around the animal for warmth.

For claims 3 & 7, Sugo as modified by Ito et al. (emphasis on Sugo) teaches wherein the sheet has a water absorption property (col. 1, line 62) and deodorization property (col. 2, lines 46-52 and see title of invention).

For claims 5 & 8, Sugo as modified by Ito et al. (emphasis on Sugo) teaches wherein the cellulose having carboxyl groups chemically bound thereto is formed with a graft polymerization method (col. 2, lines 9-55).

For claims 6 & 9, Sugo as modified by Ito et al. (emphasis on Sugo) teaches amount of carboxyl groups per dry fabric (col. 2, lines 17-18, and in example 2). However, Sugo as modified by Ito et al. does not specifically teach wherein improved cellulose fabric contains 40 to 140 millimole carboxyl groups per 100 g of dry fabric. It would have been obvious to one having ordinary skill in the art at the time the invention

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was made to have the improved cellulose fabric of Sugo as modified by Ito et al. contains 40 to 140 millimole carboxyl groups per 100 g of dry fabric, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (more potent or not) is achieved involves only routine skill in the art.

For claim 27, Sugo as modified by Ito et al. (emphasis on Sugo) teaches wherein the cellulose having carboxyl groups chemically bound thereto is formed with a graft polymerization method (col. 2, lines 9-55).

**5. Claims 4 & 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo as modified by Ito et al. as applied to claim 1 above, and further in view of Newton (2004/0163603).**

Sugo as modified by Ito et al. is silent about wherein the sheet has a tearing resistance.

Newton teaches in the same field of endeavor of floor mat for animal as Sugo as modified by Ito et al., in which Newton employs a pet pad cover comprising a sheet that is made out of a tear resistance material ([0011]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a tear resistance material as taught by Newton for the sheet of Sugo as modified by Ito et al. in order to prevent an animal from tearing the sheet.

**6. Claims 10,13,14,16-19,26,29,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo (as above) in view of Ito et al. (as above) and Otsuji et al. (2001/0009142).**

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For claim 10, Sugo as modified by Ito et al. teaches the floor mat with the features as explained above (teaching of Sugo) and the sheet with flexibility and folding property as explained in the above (teaching of Ito et al.). In addition, Sugo as modified by Ito et al. teach wherein the sheet has a temperature holding property to a degree that can keep the body temperature of the small animal (because of the material the sheet is made of, there will be some degree of temperature holding property). Not explained is the small animal rearing cage comprising a rearing box having a floor and a wall provided at a circumference of the floor.

Otsuji et al. teach in the same field of endeavor of floor mat for animal as Sugo as modified by Ito et al., in which Otsuji et al. employ a rearing box 2 having a floor and a wall provided at a circumference of the floor, and a mat 1 laid therein the box, the rearing box for restraining the small animal therein. It would have been obvious to one having ordinary skill in the art at the time the invention was made to place the sheet of Sugo as modified by Ito et al. in a rearing box as taught by Otsuji et al. in order to keep the sheet confined so that the animal will not drag the sheet everywhere.

For claims 13 & 18, Sugo as modified by Ito et al. and Otsuji et al. (emphasis on Sugo) teaches amount of carboxyl groups per dry fabric (col. 2, lines 17-18, and in example 2). However, Sugo as modified by Ito et al. and Otsuji et al. does not specifically teach wherein improved cellulose fabric contains 40 to 140 millimole carboxyl groups per 100 g of dry fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the improved cellulose fabric of Sugo as modified by Ito et al. and Otsuji et al. contains 40 to 140

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millimole carboxyl groups per 100 g of dry fabric, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (more potent or not) is achieved involves only routine skill in the art.

For claims 14, 17 & 29, Sugo as modified by Ito et al. and Otsuji et al. (emphasis on Sugo) teaches wherein the cellulose having carboxyl groups chemically bound thereto is formed with a graft polymerization method (col. 2, lines 9-55).

For claims 16 & 26, Sugo as modified by Ito et al. and Otsuji et al. (emphasis on Sugo) teaches wherein the sheet has a water absorption property (col. 1, line 62) and deodorization property (col. 2, lines 46-52 and see title of invention).

For claims 19 & 31, it appears from fig. 4 of Ito et al. that the sheet is larger than the rearing box of Otsuji et al. since the sheet of Ito et al. is folded several times. However, if not, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the sheet of Sugo as modified by Ito et al. and Otsuji et al. be larger in size than the floor area of the rearing box in order to better soak up urine or the like by provide coverage for the whole floor area, and to provide a larger cushion area for the animal.

**7. Claims 12 & 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugo as modified by Ito et al. and Otsuji et al. as applied to claim 10 above, and further in view of Newton (as above).**

Sugo as modified by Ito et al. and Otsuji et al. is silent about wherein the sheet has a tearing resistance.



Newton teaches in the same field of endeavor of floor mat for animal as Sugo as modified by Ito et al., in which Newton employs a pet pad cover comprising a sheet that is made out of a tear resistance material ([0011]). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a tear resistance material as taught by Newton for the sheet of Sugo as modified by Ito et al. and Otsuji et al. in order to prevent an animal from tearing the sheet.

### ***Response to Arguments***

8. Applicant's arguments filed 1/20/10 have been fully considered but they are not persuasive. Note that only certain arguments will be addressed herein because the arguments have been addressed in the final rejection mailed on 7/24/09.

**Applicant argued that the Examiner takes unsupported Official Notice that the composition in Sugo has such a temperature holding property.**

As explained in the above and in the final rejection mailed on 7/24/09, the mat of Sugo as modified by Ito et al. is capable of providing flexibility and temperature holding property because it has all the structural elements as claimed by Applicant, thus, it can be flexible and temperature warming. In addition, a material such as that of a fabric mat (taught by both Sugo and Ito) would automatically provide temperature holding property, for such is the characteristic of the material. Furthermore, since Applicant failed to establish the degree of temperature holding property, "sufficient" is broad and infinite because what is really considered "sufficient". It would depends on the type of animal, the material, the thickness, thus, by merely claiming sufficient is broad. Moreover, Applicant argued about "thermo-conductive" property, however, this limitation is not

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claimed. Claiming temperature holding property is not the same as thermo-conductive property, thus, Applicant is attempting to claim something that is not a part of the invention nor is it disclosed.

**Applicant argued that the Ito reference does not fill in the deficiencies of the Sugo reference. Ito discloses a sheet or bag having a capsule into which a liquid or powder is filled and when broken by external forces disperses the component to indicate an exact point where the sheet got wet or damaged. [See, Ito at Col. 2, Ins. 10-50] The examiner points to Ito's Fig. 4 to demonstrate Ito's flexibility of a sheet being folded onto itself seamlessly. Ito fails to teach or suggest randomly formed, meandering and overlapped folds of various shapes and sizes, where a plurality of rigids and grooves are formed on the folds to make walls for the purposes claimed.**

Fig. 4 of Ito clearly shows randomization of the sheet. The sheet 12 of Ito is randomly formed, meandering and overlapped folds of various shapes and sizes, where a plurality of rigids and grooves are formed on the folds to make walls because as clearly shown in fig. 4. There is no specific pattern of folding or uniform folding for the sheet 12 of Ito because the overlapping sheet creates area of different sizes and shapes. In addition, Ito was not relied on for sheet filled with capsule into which a liquid or powder is filled and when broken by external forces disperses the component to indicate an exact point where the sheet got wet or damaged. Clearly, the action above explained what Ito was relied on for, thus, Applicant is arguing something that was not relied on for Ito.

**Applicant argued that Sugo teaches away from what the applicant claims because the flakes and spheres used in Sugo for excrements can not be folded. In addition, Sugo fails to disclose any such folding as the applicant claims.**

The Examiner did not relied on Sugo for the flakes and spheres teaching. Sugo teaches a mat or a fabric mat (col. 2,line 2), to which the Examiner relied thereon. Folding teaching is from Ito, thus, Sugo in view of Ito teaches the folding concept.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Son T. Nguyen/  
Primary Examiner, Art Unit 3643